



Date Prepared/Revised 10/13/2023
DEP USE ONLY
Date Received

**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	LCSWMA
Address:	3044 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 30.58" Longitude: 76 ^o 26' 11.25"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: _____ ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/11/2023 Sample Collection Time: 12:55 PM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/31/2023
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/11/2023

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	181	SM20-2321
CALCIUM, TOTAL	14.5	EPA 200.7
CALCIUM, DISSOLVED	14.9	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	17.6	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	9.6	EPA 200.7
MAGNESIUM, DISSOLVED	10.3	EPA 200.7
MANGANESE, TOTAL (ug/l)	15	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	14	EPA 200.7
NITRATE-NITROGEN	17.7	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/11/2023

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	7.89	FIELD
pH-LAB (SU)	8	SM4500B
POTASSIUM, TOTAL	1.9	EPA 200.7
POTASSIUM, DISSOLVED	2	EPA 200.7
SODIUM, TOTAL	9.3	EPA 200.7
SODIUM, DISSOLVED	9.1	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	250	FIELD
SPEC. COND., LAB (umhos/cm)	241	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	181	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	201	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/11/2023

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



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**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

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General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	MILLER
Address:	3052 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 29.85" Longitude: 76 ^o 26' 11.45"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged:
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/11/2023 Sample Collection Time: 12:45 PM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/31/2023
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS MILLER

Sample Date

08/11/2023

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	7	SM20-2321
CALCIUM, TOTAL	17.7	EPA 200.7
CALCIUM, DISSOLVED	17.3	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	18.3	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	8.3	EPA 200.7
MAGNESIUM, DISSOLVED	7.8	EPA 200.7
MANGANESE, TOTAL (ug/l)	23	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	18	EPA 200.7
NITRATE-NITROGEN	16.8	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS MILLER

Sample Date

08/11/2023

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	6.84	FIELD
pH-LAB (SU)	6.89	SM4500B
POTASSIUM, TOTAL	2.1	EPA 200.7
POTASSIUM, DISSOLVED	2	EPA 200.7
SODIUM, TOTAL	8.6	EPA 200.7
SODIUM, DISSOLVED	7.7	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	229	FIELD
SPEC. COND., LAB (umhos/cm)	237	EPA 120.1
SULFATE	2.2	EPA 300
ALKALINITY	7	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	214	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS MILLER

Sample Date

08/11/2023

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



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FORM 52 MUNICIPAL WASTE LANDFILL PRIVATE WATER SUPPLY QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	LCSWMA
Address:	3056 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 28.44" Longitude: 76 ^o 26' 10.43"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: ft./MSL
Total Well Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Sampling Depth:	ft. Well Volumes Purged:
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/11/2023 Sample Collection Time: 12:35 PM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/24/2023
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/11/2023

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	9	SM20-2321
CALCIUM, TOTAL	11.7	EPA 200.7
CALCIUM, DISSOLVED	11.3	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	21.9	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	11.1	EPA 200.7
MAGNESIUM, DISSOLVED	11.2	EPA 200.7
MANGANESE, TOTAL (ug/l)	94	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	90	EPA 200.7
NITRATE-NITROGEN	15.7	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/11/2023

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	6.71	FIELD
pH-LAB (SU)	6.78	SM4500B
POTASSIUM, TOTAL	2.5	EPA 200.7
POTASSIUM, DISSOLVED	2.5	EPA 200.7
SODIUM, TOTAL	8.6	EPA 200.7
SODIUM, DISSOLVED	8	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	227	FIELD
SPEC. COND., LAB (umhos/cm)	238	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	9	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	170	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.4	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/11/2023

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



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**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

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General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DE° MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	LCSWMA
Address:	3060 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39° 57' 27.63" Longitude: 76° 26' 10.01"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: _____ ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/11/2023 Sample Collection Time: 12:25 PM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/31/2023
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

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MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/11/2023

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	5 ND	SM20-2321
CALCIUM, TOTAL	11.7	EPA 200.7
CALCIUM, DISSOLVED	10.7	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	17	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	10.6	EPA 200.7
MAGNESIUM, DISSOLVED	10.3	EPA 200.7
MANGANESE, TOTAL (ug/l)	110	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	100	EPA 200.7
NITRATE-NITROGEN	15.2	EPA 300

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MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/11/2023

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	6.49	FIELD
pH-LAB (SU)	6.57	SM4500B
POTASSIUM, TOTAL	3	EPA 200.7
POTASSIUM, DISSOLVED	2.7	EPA 200.7
SODIUM, TOTAL	9.2	EPA 200.7
SODIUM, DISSOLVED	8.1	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	224	FIELD
SPEC. COND., LAB (umhos/cm)	229	EPA 120.1
SULFATE	8.2	EPA 300
ALKALINITY	5 ND	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	166	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

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PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

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PS LCSWMA

Sample Date

08/11/2023

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



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FORM 52 MUNICIPAL WASTE LANDFILL PRIVATE WATER SUPPLY QUARTERLY WATER QUALITY ANALYSES

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General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DE° MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	SENSENICH
Address:	3076 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39° 57' 28.2" Longitude: 76° 26' 11.1"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: _____ ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/11/2023 Sample Collection Time: 12:15 PM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/31/2023
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS SENSENICH

Sample Date

08/11/2023

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	10	SM20-2321
CALCIUM, TOTAL	14.4	EPA 200.7
CALCIUM, DISSOLVED	15	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	54.4	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	8.1	EPA 200.7
MAGNESIUM, DISSOLVED	8.8	EPA 200.7
MANGANESE, TOTAL (ug/l)	160	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	170	EPA 200.7
NITRATE-NITROGEN	9.3	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS SENSENICH

Sample Date

08/11/2023

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	6.82	FIELD
pH-LAB (SU)	6.87	SM4500B
POTASSIUM, TOTAL	3.9	EPA 200.7
POTASSIUM, DISSOLVED	4.1	EPA 200.7
SODIUM, TOTAL	23.8	EPA 200.7
SODIUM, DISSOLVED	24.7	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	302	FIELD
SPEC. COND., LAB (umhos/cm)	312	EPA 120.1
SULFATE	11.2	EPA 300
ALKALINITY	10	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	219	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS SENSENICH

Sample Date

08/11/2023

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



Date Prepared/Revised 10/13/2023
DEP USE ONLY
Date Received

FORM 52 MUNICIPAL WASTE LANDFILL PRIVATE WATER SUPPLY QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DE° MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	LCSWMA
Address:	3079 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39° 57' 21.99" Longitude: 76° 26' 10.58"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged:
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/11/2023 Sample Collection Time: 2:00 PM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/31/2023
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/11/2023

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	21	SM20-2321
CALCIUM, TOTAL	10.2	EPA 200.7
CALCIUM, DISSOLVED	10.4	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	32.2	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	5.2	EPA 200.7
MAGNESIUM, DISSOLVED	5.6	EPA 200.7
MANGANESE, TOTAL (ug/l)	24	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	28	EPA 200.7
NITRATE-NITROGEN	1	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/11/2023

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	7.06	FIELD
pH-LAB (SU)	6.98	SM4500B
POTASSIUM, TOTAL	2.1	EPA 200.7
POTASSIUM, DISSOLVED	2.3	EPA 200.7
SODIUM, TOTAL	13.2	EPA 200.7
SODIUM, DISSOLVED	13.2	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	194	FIELD
SPEC. COND., LAB (umhos/cm)	188	EPA 120.1
SULFATE	8.8	EPA 300
ALKALINITY	21	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	135	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/11/2023

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



Date Prepared/Revised 10/13/2023
DEP USE ONLY
Date Received

**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	WEBER
Address:	3088 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 21" Longitude: 76 ^o 26' 7.1"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: _____ ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/11/2023 Sample Collection Time: 12:05 PM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/24/2023
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER

Sample Date

08/11/2023

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	145	SM20-2321
CALCIUM, TOTAL	0.13	EPA 200.7
CALCIUM, DISSOLVED	0.12	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	398	EPA 300
FLUORIDE	0.5 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	0.05 ND	EPA 200.7
MAGNESIUM, DISSOLVED	0.1 ND	EPA 200.7
MANGANESE, TOTAL (ug/l)	2.5 ND	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	5 ND	EPA 200.7
NITRATE-NITROGEN	5	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER

Sample Date

08/11/2023

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	2.5 ND	EPA 300
pH-FIELD (SU)	7.94	FIELD
pH-LAB (SU)	8.02	SM4500B
POTASSIUM, TOTAL	2.3	EPA 200.7
POTASSIUM, DISSOLVED	2.4	EPA 200.7
SODIUM, TOTAL	276	EPA 200.7
SODIUM, DISSOLVED	283	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	1519	FIELD
SPEC. COND., LAB (umhos/cm)	1510	EPA 120.1
SULFATE	5 ND	EPA 300
ALKALINITY	145	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	816	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER

Sample Date

08/11/2023

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



Date Prepared/Revised 10/13/2023
DEP USE ONLY
Date Received

**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DE° MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	KIRCHNER
Address:	3100 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39° 57' 17.9" Longitude: 76° 26' 6.28"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: _____ ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/11/2023 Sample Collection Time: 1:50 PM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/31/2023
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS KIRCHNER

Sample Date

08/11/2023

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	17	SM20-2321
CALCIUM, TOTAL	13.6	EPA 200.7
CALCIUM, DISSOLVED	13.3	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	42.1	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	6.4	EPA 200.7
MAGNESIUM, DISSOLVED	6.5	EPA 200.7
MANGANESE, TOTAL (ug/l)	8.6	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	7.5	EPA 200.7
NITRATE-NITROGEN	3.4	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS KIRCHNER

Sample Date

08/11/2023

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	7.03	FIELD
pH-LAB (SU)	6.98	SM4500B
POTASSIUM, TOTAL	1.8	EPA 200.7
POTASSIUM, DISSOLVED	1.9	EPA 200.7
SODIUM, TOTAL	16.6	EPA 200.7
SODIUM, DISSOLVED	16	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	229	FIELD
SPEC. COND., LAB (umhos/cm)	234	EPA 120.1
SULFATE	6.3	EPA 300
ALKALINITY	17	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	181	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS KIRCHNER

Sample Date

08/11/2023

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



Date Prepared/Revised 10/13/2023
DEP USE ONLY
Date Received

FORM 52 MUNICIPAL WASTE LANDFILL PRIVATE WATER SUPPLY QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	FRY
Address:	3106 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 17.27" Longitude: 76 ^o 26' 5.6"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged:
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/11/2023 Sample Collection Time: 11:50 AM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/31/2023
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS FRY

Sample Date

08/11/2023

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	16	SM20-2321
CALCIUM, TOTAL	20.4	EPA 200.7
CALCIUM, DISSOLVED	20.1	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	93.7	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	12.2	EPA 200.7
MAGNESIUM, DISSOLVED	12.5	EPA 200.7
MANGANESE, TOTAL (ug/l)	37	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	37	EPA 200.7
NITRATE-NITROGEN	9.3	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS FRY

Sample Date

08/11/2023

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	7.07	FIELD
pH-LAB (SU)	7.14	SM4500B
POTASSIUM, TOTAL	2.4	EPA 200.7
POTASSIUM, DISSOLVED	2.4	EPA 200.7
SODIUM, TOTAL	38.6	EPA 200.7
SODIUM, DISSOLVED	37.9	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	437	FIELD
SPEC. COND., LAB (umhos/cm)	443	EPA 120.1
SULFATE	6.6	EPA 300
ALKALINITY	16	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	322	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.4	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS FRY

Sample Date

08/11/2023

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



Date Prepared/Revised 10/13/2023
DEP USE ONLY
Date Received

**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	BECK
Address:	3125 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 11.6" Longitude: 76 ^o 26' 5.4"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: _____ ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/11/2023 Sample Collection Time: 11:40 AM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/24/2023
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS BECK

Sample Date

08/11/2023

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	188	SM20-2321
CALCIUM, TOTAL	7	EPA 200.7
CALCIUM, DISSOLVED	6.8	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	87.5	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	1.5	EPA 200.7
MAGNESIUM, DISSOLVED	1.5	EPA 200.7
MANGANESE, TOTAL (ug/l)	2.5 ND	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	5 ND	EPA 200.7
NITRATE-NITROGEN	4.6	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS BECK

Sample Date

08/11/2023

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	8.05	FIELD
pH-LAB (SU)	8.13	SM4500B
POTASSIUM, TOTAL	3	EPA 200.7
POTASSIUM, DISSOLVED	2.9	EPA 200.7
SODIUM, TOTAL	123	EPA 200.7
SODIUM, DISSOLVED	128	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	631	FIELD
SPEC. COND., LAB (umhos/cm)	644	EPA 120.1
SULFATE	10.3	EPA 300
ALKALINITY	188	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	372	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS BECK

Sample Date

08/11/2023

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 3RD QTR 2023-3044 RIVER RD
Workorder 3317985
Report ID 267671 on 8/31/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 11, 2023.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3317985001	3044 River Road, Conestoga, PA	Water	08/11/2023 12:55	08/11/2023 17:32	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 3 | The Method Blank for method EPA 200.7 reported a value greater than the reporting level for the analyte Sodium, Total. The concentration was 0.28 mg/L. Sample concentration was 10x greater than the concentration of the MB. |



Detected Results Summary

Client Sample ID 3044 River Road, Conestoga, PA Collected 08/11/2023 12:55
 Lab Sample ID 3317985001 Lab Receipt 08/11/2023 17:32

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
FIELD PARAMETERS					
pH, Field (SM4500B)	7.89	pH_Units		Field	#
Specific Conductance, Field	250	umhos/cm	1	Field	#
Temperature	15.60	Deg. C		Field	#
METALS					
Calcium, Dissolved	14.9	mg/L	0.10	EPA 200.7	#
Calcium, Total	14.5	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	10.3	mg/L	0.10	EPA 200.7	#
Magnesium, Total	9.6	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.014	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.015	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.0	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.9	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	9.1	mg/L	0.50	EPA 200.7	#
Sodium, Total	9.3	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	181	mg/L	5	SM2320B-2011	#
Alkalinity, Total	181	mg/L	5	SM2320B-2011	#
Chloride	17.6	mg/L	2.0	EPA 300.0	#
Nitrate-N	17.7	mg/L	1.0	EPA 300.0	#
pH	8.00	pH_Units		S4500HB-11	#
Specific Conductance	241	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	201	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3044 River Road, Conestoga, PA	Collected	08/11/2023 12:55
Lab Sample ID	3317985001	Lab Receipt	08/11/2023 17:32

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.89		pH_Units		Field	1	08/11/2023 12:55	BGS	P
Specific Conductance, Field	250		umhos/cm	1	Field	1	08/11/2023 12:55	BGS	P
Temperature	15.60		Deg. C		Field	1	08/11/2023 12:55	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	14.9		mg/L	0.10	EPA 200.7	1	08/14/2023 20:49	SRT	F1
Calcium, Total	14.5		mg/L	0.050	EPA 200.7	1	08/15/2023 23:55	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	08/14/2023 20:49	SRT	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	08/15/2023 23:55	SRT	D1
Magnesium, Dissolved	10.3		mg/L	0.10	EPA 200.7	1	08/14/2023 20:49	SRT	F1
Magnesium, Total	9.6		mg/L	0.050	EPA 200.7	1	08/15/2023 23:55	SRT	D1
Manganese, Dissolved	0.014		mg/L	0.0050	EPA 200.7	1	08/14/2023 20:49	SRT	F1
Manganese, Total	0.015		mg/L	0.0025	EPA 200.7	1	08/15/2023 23:55	SRT	D1
Potassium, Dissolved	2.0		mg/L	0.50	EPA 200.7	1	08/14/2023 20:49	SRT	F1
Potassium, Total	1.9		mg/L	0.25	EPA 200.7	1	08/15/2023 23:55	SRT	D1
Sodium, Dissolved	9.1		mg/L	0.50	EPA 200.7	1	08/14/2023 20:49	SRT	F1
Sodium, Total	9.3	3	mg/L	0.25	EPA 200.7	1	08/15/2023 23:55	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:20	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	94.2%	70 - 130	08/24/2023 06:20	

WET CHEMISTRY



Results

Client Sample ID	3044 River Road, Conestoga, PA	Collected	08/11/2023 12:55
Lab Sample ID	3317985001	Lab Receipt	08/11/2023 17:32

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	181		mg/L	5	SM2320B-2011	1	08/16/2023 16:06	JMS	A
Alkalinity, Total	181	1	mg/L	5	SM2320B-2011	1	08/16/2023 16:06	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	08/31/2023 08:33	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	08/16/2023 10:55	KMS	C
Chloride	17.6		mg/L	2.0	EPA 300.0	2	08/12/2023 12:27	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	08/12/2023 12:27	J1W	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	08/22/2023 17:14	PAG	K
Nitrate-N	17.7		mg/L	1.0	EPA 300.0	2	08/12/2023 12:27	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	08/12/2023 12:27	J1W	A
pH	8.00	2	pH_Units		S4500HB-11	1	08/16/2023 16:06	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	08/17/2023 15:33	AKH	J
Specific Conductance	241		umhos/cm	5	SM2510B-2011	1	08/22/2023 10:30	JXL	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	08/12/2023 12:27	J1W	A
Total Dissolved Solids	201		mg/L	25	SM2540C-15	1	08/18/2023 17:13	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	08/16/2023 03:50	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	08/11/2023 22:25	NRB	A



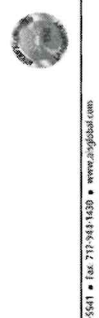
Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3317985001	3044 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3317985001	3044 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1052148
		EPA ACID	1048103	08/14/2023 17:21	MO	EPA 200.7	1048104
		EPA TRMD	1048154	08/15/2023 08:00	MEM	EPA 200.7	1048326
		N/A	N/A	N/A		EPA 524.2	1050861
		N/A	N/A	N/A		EPA 300.0	1046840
		N/A	N/A	N/A		EPA 410.4	1048745
		SW846 9066	1048837	08/17/2023 09:51	AKH	EPA 420.4	1049116
		N/A	N/A	N/A		S4500HB-11	1048757
		N/A	N/A	N/A		SM 4500-NH3G	1052414
		N/A	N/A	N/A		SM2130B-2011	1046239
		N/A	N/A	N/A		SM2320B-2011	1048757
		N/A	N/A	N/A		SM2510B-2011	1050167
		N/A	N/A	N/A		SM2540C-15	1049594
		N/A	N/A	N/A		SM5310B-14	1048297
N/A	N/A	N/A		SW846 9020B	1050337		



3317985
 Logged By: SLS
 PH: SJB

1 of 1

**CHAIN OF CUSTODY/
 REQUEST FOR ANALYSIS
 ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/
 SAMPLER. INSTRUCTIONS ON THE BACK.**

301 Fulfilling Mill Road • Middletown, PA 17057 • Phone: 717-944-5641 • Fax: 717-944-1430 • www.alsglobal.com

Client Name: Lancaster County Solid Waste MA
Address: 1299 Harrisburg Pike, P.O. Box 4424
 Lancaster, PA 17604
Contact: Dan Brown
Phone#: (717) 735-0193
Project Name#: LCSWMA - Quarterly
Bill To: Lancaster County Solid Waste MA

Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: _____ **Approved By:** _____
Email? -Y
Fax? -Y No.:

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time
1 3044RIVERRD	08/11/23	1255
2. Trip Blank	08/11/23	1732
3		
4		
5		
6		
7		
8		
9		
10		

Container Type	AG	AN	AN	CG	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	125 ml	125 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	ASC/HCl	HNO3	HNO3	None

ANALYSES/METHOD REQUESTED

Enter Number of Containers Per Sample or Field Results Below.	TOC	O-OH	TOX	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, Spc	Alkalinity, HCO3
2	1	2	3	1	2	2	2	1	1
2			2						

Matrix * or C
 * G=Grab; C=Composite
 **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OL=Oil; Other=Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Project Comments:

Relinquished By / Company Name: *ALS*
 Date: 08/31/23
 Time: 1732

LOGGED BY (signature):
 REVIEWED BY (signature):

State Samples Collected In: NY, NJ, PA, NC

Special Processing: USACE, Navy, USACE

Sample Disposal: Lab, Special

Reportable to PADEP? Yes, PWSID #, EDDS: Format Type

Temp By: WO Temp (°C) 524
 Receipt Info Completed By: *RAW*
 Cooler Custody Seal Intact: Y N MA
 Sample Custody Seal Intact: Y N MA
 Received on Ice: Y N MA
 Cooler & Samples Intact: Y N MA
 Correct Containers Provided: Y N MA
 Sample Label/COC Agree: Y N MA
 Adequate Sample Volumes: Y N MA
 CR6 Samples Filtered: Y N MA
 OP Samples Filtered: Y N MA
 VOA Trip Blank: Y N MA
 NI < 4 Days? Y N MA
 Rad Screen (uCi): Y N MA
 Courier/Tracking #: Y N MA
 SDWA Compliance: Y N MA
 PWSID: Y N MA
 WW Containers 0-6°C: Y N MA



301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 3RD QTR 2023 3052 RIVER RD
Workorder 3317987
Report ID 267698 on 8/31/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 11, 2023.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3317987001	3052 River Road, Conestoga, PA	Water	08/11/2023 12:45	08/11/2023 17:32	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
 EPA 300.1 Rev. 1.0-1997
 EPA 300.0 Rev. 2.1-1993
 EPA 353.2 Rev. 2.0-1993
 EPA 410.4 Rev. 1.0-1993
 EPA 420.4 Rev. 1.0-1993
 EPA 365.1 Rev. 2.0-1993
 EPA 200.7 Rev. 4.4-1994
 EPA 200.8 Rev. 5.4-1994
 EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 3 | The Method Blank for method EPA 200.7 reported a value greater than the reporting level for the analyte Sodium, Total. The concentration was 0.28 mg/L. Sample concentration was 10x greater than the concentration of the MB. |



Detected Results Summary

Client Sample ID 3052 River Road, Conestoga, PA Collected 08/11/2023 12:45
 Lab Sample ID 3317987001 Lab Receipt 08/11/2023 17:32

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.84	pH_Units		Field	#
Specific Conductance, Field	229	umhos/cm	1	Field	#
Temperature	15.40	Deg. C		Field	#
METALS					
Calcium, Dissolved	17.3	mg/L	0.10	EPA 200.7	#
Calcium, Total	17.7	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	7.8	mg/L	0.10	EPA 200.7	#
Magnesium, Total	8.3	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.018	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.023	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.0	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.1	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	7.7	mg/L	0.50	EPA 200.7	#
Sodium, Total	8.6	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	7	mg/L	5	SM2320B-2011	#
Alkalinity, Total	7	mg/L	5	SM2320B-2011	#
Chloride	18.3	mg/L	2.0	EPA 300.0	#
Nitrate-N	16.8	mg/L	1.0	EPA 300.0	#
pH	6.89	pH_Units		S4500HB-11	#
Specific Conductance	237	umhos/cm	5	SM2510B-2011	#
Sulfate	2.2	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	214	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3052 River Road, Conestoga, PA	Collected	08/11/2023 12:45
Lab Sample ID	3317987001	Lab Receipt	08/11/2023 17:32

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.84		pH_Units		Field	1	08/11/2023 12:45	BGS	P
Specific Conductance, Field	229		umhos/cm	1	Field	1	08/11/2023 12:45	BGS	P
Temperature	15.40		Deg. C		Field	1	08/11/2023 12:45	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	17.3		mg/L	0.10	EPA 200.7	1	08/14/2023 20:52	SRT	F1
Calcium, Total	17.7		mg/L	0.050	EPA 200.7	1	08/15/2023 23:51	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	08/14/2023 20:52	SRT	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	08/15/2023 23:51	SRT	D1
Magnesium, Dissolved	7.8		mg/L	0.10	EPA 200.7	1	08/14/2023 20:52	SRT	F1
Magnesium, Total	8.3		mg/L	0.050	EPA 200.7	1	08/15/2023 23:51	SRT	D1
Manganese, Dissolved	0.018		mg/L	0.0050	EPA 200.7	1	08/14/2023 20:52	SRT	F1
Manganese, Total	0.023		mg/L	0.0025	EPA 200.7	1	08/15/2023 23:51	SRT	D1
Potassium, Dissolved	2.0		mg/L	0.50	EPA 200.7	1	08/14/2023 20:52	SRT	F1
Potassium, Total	2.1		mg/L	0.25	EPA 200.7	1	08/15/2023 23:51	SRT	D1
Sodium, Dissolved	7.7		mg/L	0.50	EPA 200.7	1	08/14/2023 20:52	SRT	F1
Sodium, Total	8.6	3	mg/L	0.25	EPA 200.7	1	08/15/2023 23:51	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 06:48	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	94.8%	70 - 130	08/24/2023 06:48	

WET CHEMISTRY



Results

Client Sample ID	3052 River Road, Conestoga, PA	Collected	08/11/2023 12:45
Lab Sample ID	3317987001	Lab Receipt	08/11/2023 17:32

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	7		mg/L	5	SM2320B-2011	1	08/16/2023 16:19	JMS	A
Alkalinity, Total	7	1	mg/L	5	SM2320B-2011	1	08/16/2023 16:19	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	08/31/2023 08:56	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	08/16/2023 10:55	KMS	C
Chloride	18.3		mg/L	2.0	EPA 300.0	2	08/12/2023 12:38	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	08/12/2023 12:38	J1W	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	08/22/2023 17:14	PAG	K
Nitrate-N	16.8		mg/L	1.0	EPA 300.0	2	08/12/2023 12:38	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	08/12/2023 12:38	J1W	A
pH	6.89	2	pH_Units		S4500HB-11	1	08/16/2023 16:19	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	08/17/2023 16:26	AKH	J
Specific Conductance	237		umhos/cm	5	SM2510B-2011	1	08/22/2023 10:30	JXL	A
Sulfate	2.2		mg/L	2.0	EPA 300.0	2	08/12/2023 12:38	J1W	A
Total Dissolved Solids	214		mg/L	25	SM2540C-15	1	08/18/2023 17:13	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	08/16/2023 03:50	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	08/11/2023 22:25	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3317987001	3052 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3317987001	3052 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1052148
		EPA ACID	1048103	08/14/2023 17:21	MO	EPA 200.7	1048104
		EPA TRMD	1048154	08/15/2023 08:00	MEM	EPA 200.7	1048326
		N/A	N/A	N/A		EPA 524.2	1050861
		N/A	N/A	N/A		EPA 300.0	1046840
		N/A	N/A	N/A		EPA 410.4	1048745
		SW846 9066	1048837	08/17/2023 09:51	AKH	EPA 420.4	1049116
		N/A	N/A	N/A		S4500HB-11	1048757
		N/A	N/A	N/A		SM 4500-NH3G	1052414
		N/A	N/A	N/A		SM2130B-2011	1046239
		N/A	N/A	N/A		SM2320B-2011	1048757
		N/A	N/A	N/A		SM2510B-2011	1050167
		N/A	N/A	N/A		SM2540C-15	1049594
		N/A	N/A	N/A		SM5310B-14	1048297
N/A	N/A	N/A		SW846 9020B	1050337		



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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 3RD QTR 2023 3056 RIVER RD
Workorder 3317992
Report ID 267078 on 8/29/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 11, 2023.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

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ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3317992001	3056RIVERRD	Water	08/11/2023 12:35	08/11/2023 17:32	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
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EPA 300.0 Rev. 2.1-1993
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EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
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- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
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N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
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Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 3 | The Method Blank for method EPA 200.7 reported a value greater than the reporting level for the analyte Sodium, Total. The concentration was 0.28 mg/L. Sample concentration was 10x greater than the concentration of the MB. |



Detected Results Summary

Client Sample ID	3056RIVERRD	Collected	08/11/2023 12:35
Lab Sample ID	3317992001	Lab Receipt	08/11/2023 17:32

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.71	pH_Units		Field	#
Specific Conductance, Field	227	umhos/cm	1	Field	#
Temperature	15.50	Deg. C		Field	#
METALS					
Calcium, Dissolved	11.3	mg/L	0.10	EPA 200.7	#
Calcium, Total	11.7	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	11.2	mg/L	0.10	EPA 200.7	#
Magnesium, Total	11.1	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.090	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.094	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.5	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.5	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	8.0	mg/L	0.50	EPA 200.7	#
Sodium, Total	8.6	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	9	mg/L	5	SM2320B-2011	#
Alkalinity, Total	9	mg/L	5	SM2320B-2011	#
Chloride	21.9	mg/L	2.0	EPA 300.0	#
Nitrate-N	15.7	mg/L	1.0	EPA 300.0	#
pH	6.78	pH_Units		S4500HB-11	#
Specific Conductance	238	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	170	mg/L	25	SM2540C-15	#
Turbidity	0.40	NTU	0.30	SM2130B-2011	#



Results

Client Sample ID	3056RIVERRD	Collected	08/11/2023 12:35
Lab Sample ID	3317992001	Lab Receipt	08/11/2023 17:32

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.71		pH_Units		Field	1	08/11/2023 12:35	BGS	P
Specific Conductance, Field	227		umhos/cm	1	Field	1	08/11/2023 12:35	BGS	P
Temperature	15.50		Deg. C		Field	1	08/11/2023 12:35	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	11.3		mg/L	0.10	EPA 200.7	1	08/14/2023 21:12	SRT	F1
Calcium, Total	11.7		mg/L	0.050	EPA 200.7	1	08/15/2023 23:35	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	08/14/2023 21:12	SRT	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	08/15/2023 23:35	SRT	D1
Magnesium, Dissolved	11.2		mg/L	0.10	EPA 200.7	1	08/14/2023 21:12	SRT	F1
Magnesium, Total	11.1		mg/L	0.050	EPA 200.7	1	08/15/2023 23:35	SRT	D1
Manganese, Dissolved	0.090		mg/L	0.0050	EPA 200.7	1	08/14/2023 21:12	SRT	F1
Manganese, Total	0.094		mg/L	0.0025	EPA 200.7	1	08/15/2023 23:35	SRT	D1
Potassium, Dissolved	2.5		mg/L	0.50	EPA 200.7	1	08/14/2023 21:12	SRT	F1
Potassium, Total	2.5		mg/L	0.25	EPA 200.7	1	08/15/2023 23:35	SRT	D1
Sodium, Dissolved	8.0		mg/L	0.50	EPA 200.7	1	08/14/2023 21:12	SRT	F1
Sodium, Total	8.6	3	mg/L	0.25	EPA 200.7	1	08/15/2023 23:35	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 08:10	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	94.7%	70 - 130	08/24/2023 08:10	

WET CHEMISTRY



Results

Client Sample ID	3056RIVERRD		Collected	08/11/2023 12:35					
Lab Sample ID	3317992001		Lab Receipt	08/11/2023 17:32					
Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	9		mg/L	5	SM2320B-2011	1	08/16/2023 16:44	JMS	A
Alkalinity, Total	9	1	mg/L	5	SM2320B-2011	1	08/16/2023 16:44	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	08/17/2023 13:35	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	08/16/2023 10:55	KMS	C
Chloride	21.9		mg/L	2.0	EPA 300.0	2	08/12/2023 13:09	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	08/12/2023 13:09	J1W	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	08/23/2023 18:04	PAG	K
Nitrate-N	15.7		mg/L	1.0	EPA 300.0	2	08/12/2023 13:09	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	08/12/2023 13:09	J1W	A
pH	6.78	2	pH_Units		S4500HB-11	1	08/16/2023 16:44	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	08/17/2023 16:23	AKH	J
Specific Conductance	238		umhos/cm	5	SM2510B-2011	1	08/22/2023 10:30	JXL	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	08/12/2023 13:09	J1W	A
Total Dissolved Solids	170		mg/L	25	SM2540C-15	1	08/18/2023 17:13	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	08/16/2023 03:50	PAG	H
Turbidity	0.40		NTU	0.30	SM2130B-2011	1	08/11/2023 22:25	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3317992001	3056RIVERRD	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3317992001	3056RIVERRD	N/A	N/A	N/A		Field	1052148
		EPA TRMD	1048154	08/15/2023 08:00	MEM	EPA 200.7	1048326
		EPA ACID	1048103	08/14/2023 17:21	MO	EPA 200.7	1048104
		N/A	N/A	N/A		EPA 524.2	1050861
		N/A	N/A	N/A		EPA 300.0	1046840
		N/A	N/A	N/A		EPA 410.4	1048745
		SW846 9066	1048837	08/17/2023 09:51	AKH	EPA 420.4	1049116
		N/A	N/A	N/A		S4500HB-11	1048757
		N/A	N/A	N/A		SM 4500-NH3G	1049058
		N/A	N/A	N/A		SM2130B-2011	1046239
		N/A	N/A	N/A		SM2320B-2011	1048757
		N/A	N/A	N/A		SM2510B-2011	1050167
		N/A	N/A	N/A		SM2540C-15	1049594
		N/A	N/A	N/A		SM5310B-14	1048297
		N/A	N/A	N/A		SW846 9020B	1050709



3317992
 Logged By: SLS
 PH: SJB



Generated by ALS
**CHAIN OF CUSTODY/
 REQUEST FOR ANALYSIS**
**ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
 SAMPLER. INSTRUCTIONS ON THE BACK**

301 Fulking Mill Road • Middletown, PA 17057 • Phone: 717-944-5641 • Fax: 717-944-1430
 Client Name: Lancaster County Solid Waste MA
 Address: 1299 Harrisburg Pike, P.O. Box 4424
 Lancaster, PA 17604
 Contact: Dan Brown
 Phone#: (717) 735-0193
 Project Name#: LCSWMA - Quarterly
 Bill To: Lancaster County Solid Waste MA

Container Type: AG AN CG PL PL PL
 Container Size: 40 ml 125 ml 250 ml 40 ml 125 ml 125 ml 500 ml
 Preservative: HCl H2SO4 H2SO4 ASC/HCl HNO3 HNO3 HNO3 None

ANALYSES/METHOD REQUESTED
 TOC O-OH TOX FM NH3-N, COD Dissolved Metals: Ca, Fe, Mg, Mn, K, Na Metals: Ca, Fe, Mg, Mn, K, Na pH, TDS, NO2, NO3, Cl, SO4, F, Tb, Spc Alkalinity, HCO3

Therm ID: 524
 Temp By: RW / 2c
 WO Temp (°C)
 Receipt Info Completed By: RAW
 Cooler Custody Seal Intact: Y N NA
 Sample Custody Seal Intact: Y N NA
 Received on Ice: Y N NA
 Cooler & Samples Intact: Y N NA
 Correct Containers Provided: Y N NA
 Sample Label/COC Agree: Y N NA
 Adequate Sample Volumes: Y N NA
 CR6 Samples Filtered: Y N NA
 OP Samples Filtered: Y N NA
 VOA Trip Blank: Y N NA
 NIS 4 Days?: Y N NA
 Rad Screen (uCi): Y N NA
 Courier/Tracking #: Y N NA

Temp By: RW / 2c
 WO Temp (°C)
 Receipt Info Completed By: RAW
 Cooler Custody Seal Intact: Y N NA
 Sample Custody Seal Intact: Y N NA
 Received on Ice: Y N NA
 Cooler & Samples Intact: Y N NA
 Correct Containers Provided: Y N NA
 Sample Label/COC Agree: Y N NA
 Adequate Sample Volumes: Y N NA
 CR6 Samples Filtered: Y N NA
 OP Samples Filtered: Y N NA
 VOA Trip Blank: Y N NA
 NIS 4 Days?: Y N NA
 Rad Screen (uCi): Y N NA
 Courier/Tracking #: Y N NA

Enter Number of Containers Per Sample or Field Results Below.
 TOC 2 1 2 3 X
 O-OH 1 2 2 2
 TOX 2 1 2 2
 FM 1 2 2 2
 NH3-N, COD 1 2 2 2
 Dissolved Metals: Ca, Fe, Mg, Mn, K, Na 2 1 2 2
 Metals: Ca, Fe, Mg, Mn, K, Na 1 2 2 2
 pH, TDS, NO2, NO3, Cl, SO4, F, Tb, Spc 1 2 2 2
 Alkalinity, HCO3 1 2 2 2

Sample Description/Location (as it will appear on the lab report)
 1. 3056RIVERRD 08/11/23 1235 G DW 2
 2. Trip Blank 08/11/23 1730 G DI 2
 3. 4. 5. 6. 7. 8. 9. 10.

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

Special Processing
 USACE
 Navy
 Reportable to PADEP? Yes
 PWSID #
 EDDS: Format Type

State Samples Collected In
 NY
 NJ
 PA
 NC

Project Comments:
 Relinquished By / Company Name
 1. X Shadle ALS
 3. 5. 7. 9.

LOGGED BY (signature):
 REVIEWED BY (signature):
 Received By / Company Name
 Date Time
 8/11/23 1732

Project Comments:
 Relinquished By / Company Name
 1. X Shadle ALS
 3. 5. 7. 9.

Project Comments:
 Relinquished By / Company Name
 1. X Shadle ALS
 3. 5. 7. 9.

Project Comments:
 Relinquished By / Company Name
 1. X Shadle ALS
 3. 5. 7. 9.

Project Comments:
 Relinquished By / Company Name
 1. X Shadle ALS
 3. 5. 7. 9.

ALS Environmental
 301 Fulking Mill Road • Middletown, PA 17057 • Phone: 717-944-5641 • Fax: 717-944-1430
 Client Name: Lancaster County Solid Waste MA
 Address: 1299 Harrisburg Pike, P.O. Box 4424
 Lancaster, PA 17604
 Contact: Dan Brown
 Phone#: (717) 735-0193
 Project Name#: LCSWMA - Quarterly
 Bill To: Lancaster County Solid Waste MA
 TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
 Date Required: Approved By:
 Email? -Y -N
 Fax? -Y -N
 Sample Date Time
 1. 3056RIVERRD 08/11/23 1235 G DW 2
 2. Trip Blank 08/11/23 1730 G DI 2
 3. 4. 5. 6. 7. 8. 9. 10.
 Project Comments:
 Relinquished By / Company Name
 1. X Shadle ALS
 3. 5. 7. 9.
 LOGGED BY (signature):
 REVIEWED BY (signature):
 Received By / Company Name
 Date Time
 8/11/23 1732
 ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:
 Special Processing
 USACE
 Navy
 Reportable to PADEP? Yes
 PWSID #
 EDDS: Format Type
 State Samples Collected In
 NY
 NJ
 PA
 NC



301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 3RD QTR 2023 3060 RIVER RD
Workorder 3317991
Report ID 267697 on 8/31/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 11, 2023.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3317991001	3060RIVERRD	Water	08/11/2023 12:25	08/11/2023 17:32	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 3 | The Method Blank for method EPA 200.7 reported a value greater than the reporting level for the analyte Sodium, Total. The concentration was 0.28 mg/L. Sample concentration was 10x greater than the concentration of the MB. |



Detected Results Summary

Client Sample ID	3060RIVERRD	Collected	08/11/2023 12:25
Lab Sample ID	3317991001	Lab Receipt	08/11/2023 17:32

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.49	pH_Units		Field	#
Specific Conductance, Field	224	umhos/cm	1	Field	#
Temperature	15.90	Deg. C		Field	#
METALS					
Calcium, Dissolved	10.7	mg/L	0.10	EPA 200.7	#
Calcium, Total	11.7	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	10.3	mg/L	0.10	EPA 200.7	#
Magnesium, Total	10.6	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.10	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.11	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.7	mg/L	0.50	EPA 200.7	#
Potassium, Total	3.0	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	8.1	mg/L	0.50	EPA 200.7	#
Sodium, Total	9.2	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Chloride	17.0	mg/L	2.0	EPA 300.0	#
Nitrate-N	15.2	mg/L	1.0	EPA 300.0	#
pH	6.57	pH_Units		S4500HB-11	#
Specific Conductance	229	umhos/cm	5	SM2510B-2011	#
Sulfate	8.2	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	166	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3060RIVERRD	Collected	08/11/2023 12:25
Lab Sample ID	3317991001	Lab Receipt	08/11/2023 17:32

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.49		pH_Units		Field	1	08/11/2023 12:25	BGS	P
Specific Conductance, Field	224		umhos/cm	1	Field	1	08/11/2023 12:25	BGS	P
Temperature	15.90		Deg. C		Field	1	08/11/2023 12:25	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	10.7		mg/L	0.10	EPA 200.7	1	08/14/2023 21:09	SRT	F1
Calcium, Total	11.7		mg/L	0.050	EPA 200.7	1	08/16/2023 00:24	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	08/14/2023 21:09	SRT	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	08/16/2023 00:24	SRT	D1
Magnesium, Dissolved	10.3		mg/L	0.10	EPA 200.7	1	08/14/2023 21:09	SRT	F1
Magnesium, Total	10.6		mg/L	0.050	EPA 200.7	1	08/16/2023 00:24	SRT	D1
Manganese, Dissolved	0.10		mg/L	0.0050	EPA 200.7	1	08/14/2023 21:09	SRT	F1
Manganese, Total	0.11		mg/L	0.0025	EPA 200.7	1	08/16/2023 00:24	SRT	D1
Potassium, Dissolved	2.7		mg/L	0.50	EPA 200.7	1	08/14/2023 21:09	SRT	F1
Potassium, Total	3.0		mg/L	0.25	EPA 200.7	1	08/16/2023 00:24	SRT	D1
Sodium, Dissolved	8.1		mg/L	0.50	EPA 200.7	1	08/14/2023 21:09	SRT	F1
Sodium, Total	9.2	3	mg/L	0.25	EPA 200.7	1	08/16/2023 00:24	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:43	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	94.4%	70 - 130	08/24/2023 07:43	

WET CHEMISTRY



Results

Client Sample ID	3060RIVERRD	Collected	08/11/2023 12:25						
Lab Sample ID	3317991001	Lab Receipt	08/11/2023 17:32						
Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	ND	ND	mg/L	5	SM2320B-2011	1	08/16/2023 19:46	JMS	A
Alkalinity, Total	ND	ND,1	mg/L	5	SM2320B-2011	1	08/16/2023 19:46	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	08/31/2023 08:48	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	08/16/2023 10:55	KMS	C
Chloride	17.0		mg/L	2.0	EPA 300.0	2	08/12/2023 12:59	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	08/12/2023 12:59	J1W	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	08/22/2023 17:14	PAG	K
Nitrate-N	15.2		mg/L	1.0	EPA 300.0	2	08/12/2023 12:59	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	08/12/2023 12:59	J1W	A
pH	6.57	2	pH_Units		S4500HB-11	1	08/16/2023 19:46	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	08/17/2023 16:30	AKH	J
Specific Conductance	229		umhos/cm	5	SM2510B-2011	1	08/22/2023 10:30	JXL	A
Sulfate	8.2		mg/L	2.0	EPA 300.0	2	08/12/2023 12:59	J1W	A
Total Dissolved Solids	166		mg/L	25	SM2540C-15	1	08/18/2023 17:13	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	08/16/2023 03:50	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	08/11/2023 22:25	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3317991001	3060RIVERRD	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3317991001	3060RIVERRD	N/A	N/A	N/A		Field	1052148
		EPA ACID	1048103	08/14/2023 17:21	MO	EPA 200.7	1048104
		EPA TRMD	1048154	08/15/2023 08:00	MEM	EPA 200.7	1048326
		N/A	N/A	N/A		EPA 524.2	1050861
		N/A	N/A	N/A		EPA 300.0	1046840
		N/A	N/A	N/A		EPA 410.4	1048745
		SW846 9066	1048837	08/17/2023 09:51	AKH	EPA 420.4	1049116
		N/A	N/A	N/A		S4500HB-11	1048757
		N/A	N/A	N/A		SM 4500-NH3G	1052414
		N/A	N/A	N/A		SM2130B-2011	1046239
		N/A	N/A	N/A		SM2320B-2011	1048757
		N/A	N/A	N/A		SM2510B-2011	1050167
		N/A	N/A	N/A		SM2540C-15	1049594
		N/A	N/A	N/A		SM5310B-14	1048297
		N/A	N/A	N/A		SW846 9020B	1050337



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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 3RD QTR 2023-3076 RIVER RD
Workorder 3317988
Report ID 267678 on 8/31/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 11, 2023.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

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ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3317988001	3076 River Road, Conestoga, PA	Water	08/11/2023 12:15	08/11/2023 17:32	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 3 | The concentration of this analyte was greater than 4 times the concentration of the spike added to the matrix spike. According to protocol, the calculation for percent recovery of the matrix spike is not valid. |
| 4 | The Method Blank for method EPA 200.7 reported a value greater than the reporting level for the analyte Sodium, Total. The concentration was 0.28 mg/L. Sample concentration was 10x greater than the concentration of the MB. |



Detected Results Summary

Client Sample ID	3076 River Road, Conestoga, PA	Collected	08/11/2023 12:15
Lab Sample ID	3317988001	Lab Receipt	08/11/2023 17:32

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.82	pH_Units		Field	#
Specific Conductance, Field	302	umhos/cm	1	Field	#
Temperature	15.70	Deg. C		Field	#
METALS					
Calcium, Dissolved	15.0	mg/L	0.10	EPA 200.7	#
Calcium, Total	14.4	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	8.8	mg/L	0.10	EPA 200.7	#
Magnesium, Total	8.1	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.17	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.16	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	4.1	mg/L	0.50	EPA 200.7	#
Potassium, Total	3.9	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	24.7	mg/L	0.50	EPA 200.7	#
Sodium, Total	23.8	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	10	mg/L	5	SM2320B-2011	#
Alkalinity, Total	10	mg/L	5	SM2320B-2011	#
Chloride	54.4	mg/L	2.0	EPA 300.0	#
Nitrate-N	9.3	mg/L	1.0	EPA 300.0	#
pH	6.87	pH_Units		S4500HB-11	#
Specific Conductance	312	umhos/cm	5	SM2510B-2011	#
Sulfate	11.2	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	219	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3076 River Road, Conestoga, PA	Collected	08/11/2023 12:15
Lab Sample ID	3317988001	Lab Receipt	08/11/2023 17:32

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.82		pH_Units		Field	1	08/11/2023 12:15	BGS	P
Specific Conductance, Field	302		umhos/cm	1	Field	1	08/11/2023 12:15	BGS	P
Temperature	15.70		Deg. C		Field	1	08/11/2023 12:15	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	15.0		mg/L	0.10	EPA 200.7	1	08/14/2023 20:56	SRT	F1
Calcium, Total	14.4	3	mg/L	0.050	EPA 200.7	1	08/15/2023 23:09	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	08/14/2023 20:56	SRT	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	08/15/2023 23:09	SRT	D1
Magnesium, Dissolved	8.8		mg/L	0.10	EPA 200.7	1	08/14/2023 20:56	SRT	F1
Magnesium, Total	8.1	3	mg/L	0.050	EPA 200.7	1	08/15/2023 23:09	SRT	D1
Manganese, Dissolved	0.17		mg/L	0.0050	EPA 200.7	1	08/14/2023 20:56	SRT	F1
Manganese, Total	0.16		mg/L	0.0025	EPA 200.7	1	08/15/2023 23:09	SRT	D1
Potassium, Dissolved	4.1		mg/L	0.50	EPA 200.7	1	08/14/2023 20:56	SRT	F1
Potassium, Total	3.9		mg/L	0.25	EPA 200.7	1	08/15/2023 23:09	SRT	D1
Sodium, Dissolved	24.7		mg/L	0.50	EPA 200.7	1	08/14/2023 20:56	SRT	F1
Sodium, Total	23.8	4	mg/L	0.25	EPA 200.7	1	08/15/2023 23:09	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 07:15	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	94.8%	70 - 130	08/24/2023 07:15	

WET CHEMISTRY



Results

Client Sample ID	3076 River Road, Conestoga, PA	Collected	08/11/2023 12:15
Lab Sample ID	3317988001	Lab Receipt	08/11/2023 17:32

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	10		mg/L	5	SM2320B-2011	1	08/16/2023 16:32	JMS	A
Alkalinity, Total	10	1	mg/L	5	SM2320B-2011	1	08/16/2023 16:32	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	08/31/2023 08:30	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	08/16/2023 10:55	KMS	C
Chloride	54.4		mg/L	2.0	EPA 300.0	2	08/12/2023 12:48	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	08/12/2023 12:48	J1W	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	08/22/2023 17:14	PAG	K
Nitrate-N	9.3		mg/L	1.0	EPA 300.0	2	08/12/2023 12:48	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	08/12/2023 12:48	J1W	A
pH	6.87	2	pH_Units		S4500HB-11	1	08/16/2023 16:32	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	08/17/2023 15:50	AKH	J
Specific Conductance	312		umhos/cm	5	SM2510B-2011	1	08/22/2023 10:30	JXL	A
Sulfate	11.2		mg/L	2.0	EPA 300.0	2	08/12/2023 12:48	J1W	A
Total Dissolved Solids	219		mg/L	25	SM2540C-15	1	08/18/2023 17:13	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	08/16/2023 03:50	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	08/11/2023 22:25	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3317988001	3076 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3317988001	3076 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1052148
		EPA ACID	1048103	08/14/2023 17:21	MO	EPA 200.7	1048104
		EPA TRMD	1048154	08/15/2023 08:00	MEM	EPA 200.7	1048326
		N/A	N/A	N/A		EPA 524.2	1050861
		N/A	N/A	N/A		EPA 300.0	1046840
		N/A	N/A	N/A		EPA 410.4	1048745
		SW846 9066	1048837	08/17/2023 09:51	AKH	EPA 420.4	1049116
		N/A	N/A	N/A		S4500HB-11	1048757
		N/A	N/A	N/A		SM 4500-NH3G	1052414
		N/A	N/A	N/A		SM2130B-2011	1046239
		N/A	N/A	N/A		SM2320B-2011	1048757
		N/A	N/A	N/A		SM2510B-2011	1050167
		N/A	N/A	N/A		SM2540C-15	1049594
		N/A	N/A	N/A		SM5310B-14	1048297
N/A	N/A	N/A		SW846 9020B	1050337		



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**CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS**

**ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK.**

Client Name: LCSWMA - Brian Sensenich
Address: 3076 Rover Road
 Conestoga, PA 17516

Contact: Brian Sensenich
Phone#: (717) 676-5779

Project Name#: LCSWMA - Quarterly
Bill To: LCSWMA - Brian Sensenich

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.

Date Required: _____ **Approved By:** _____
Email? -Y -N
Fax? -Y -N

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time
1. 3076RIVERRD	08/11/23	1215
2. Trip Blank	08/11/23	1737
3		
4		
5		
6		
7		
8		
9		
10		

Container Type
 Container Size
 Preservative

Container Type	AG	AN	AN	CG	PL	PL	PL	PL
40 ml	40 ml	250 ml	250 ml	40 ml	125 ml	125 ml	125 ml	500 ml
HCl	H2SO4	H2SO4	H2SO4	ASC/HCl	HNO3	HNO3	HNO3	None

Matrix	TOC	O-OH	TOX	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, T, SPC	Alkalinity, HCO3
G	2	1	2	3	1	2	2	1	1
DW				X					
DI			2						

Enter Number of Containers Per Sample or Field Results Below.

Project Comments:

Relinquished By / Company Name	Date	Time
ALS	8/11/23	1222
		4
		6
		8
		10

LOGGED BY (signature):	DATE	TIME
REVIEWED BY (signature):	DATE	TIME
	8/11/23	1732

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

Cooler Temp: _____ **Therm ID:** _____
No. of Coolers: _____ **Y** **N** **Initial** _____
 Custody Seals Present?
 (if present) Seals Intact?

Temp By: _____ **WO Temp (°C)** _____
 Therm ID: 524

Receipt Info Completed By:
 Cooler Custody Seal Intact
 Sample Custody Seal Intact
 Received on Ice
 Cooler & Samples Intact
 Correct Containers Provided
 Sample Label/COC Agree
 Adequate Sample Volumes
 CR6 Samples Filtered
 OP Samples Filtered
 VOA Trip Blank
 NIS-4 Days?
 Courier/Tracking #:

SDWA Compliance
 PWSID
 WY Containers 0-6°C

Special Processing
 USACE
 Navy
 USACE

State Samples Collected In
 NY
 NJ
 PA
 NC
Sample Disposal
 Lab
 Special



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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 3RD QTR 2023 3079 RIVER RD
Workorder 3317980
Report ID 267691 on 8/31/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 11, 2023.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

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ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3317980001	3079RIVERRD	Water	08/11/2023 14:00	08/11/2023 17:32	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 3 | The Method Blank for method EPA 200.7 reported a value greater than the reporting level for the analyte Sodium, Total. The concentration was 0.28 mg/L. Sample concentration was 10x greater than the concentration of the MB. |



Detected Results Summary

Client Sample ID	3079RIVERRD	Collected	08/11/2023 14:00
Lab Sample ID	3317980001	Lab Receipt	08/11/2023 17:32

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.06	pH_Units		Field	#
Specific Conductance, Field	194	umhos/cm	1	Field	#
Temperature	15.70	Deg. C		Field	#
METALS					
Calcium, Dissolved	10.4	mg/L	0.10	EPA 200.7	#
Calcium, Total	10.2	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	5.6	mg/L	0.10	EPA 200.7	#
Magnesium, Total	5.2	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.028	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.024	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.3	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.1	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	13.2	mg/L	0.50	EPA 200.7	#
Sodium, Total	13.2	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	21	mg/L	5	SM2320B-2011	#
Alkalinity, Total	21	mg/L	5	SM2320B-2011	#
Chloride	32.2	mg/L	2.0	EPA 300.0	#
Nitrate-N	1.0	mg/L	1.0	EPA 300.0	#
pH	6.98	pH_Units		S4500HB-11	#
Specific Conductance	188	umhos/cm	5	SM2510B-2011	#
Sulfate	8.8	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	135	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3079RIVERRD	Collected	08/11/2023 14:00
Lab Sample ID	3317980001	Lab Receipt	08/11/2023 17:32

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.06		pH_Units		Field	1	08/11/2023 14:00	BGS	P
Specific Conductance, Field	194		umhos/cm	1	Field	1	08/11/2023 14:00	BGS	P
Temperature	15.70		Deg. C		Field	1	08/11/2023 14:00	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	10.4		mg/L	0.10	EPA 200.7	1	08/14/2023 20:33	SRT	F1
Calcium, Total	10.2		mg/L	0.050	EPA 200.7	1	08/16/2023 00:18	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	08/14/2023 20:33	SRT	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	08/16/2023 00:18	SRT	D1
Magnesium, Dissolved	5.6		mg/L	0.10	EPA 200.7	1	08/14/2023 20:33	SRT	F1
Magnesium, Total	5.2		mg/L	0.050	EPA 200.7	1	08/16/2023 00:18	SRT	D1
Manganese, Dissolved	0.028		mg/L	0.0050	EPA 200.7	1	08/14/2023 20:33	SRT	F1
Manganese, Total	0.024		mg/L	0.0025	EPA 200.7	1	08/16/2023 00:18	SRT	D1
Potassium, Dissolved	2.3		mg/L	0.50	EPA 200.7	1	08/14/2023 20:33	SRT	F1
Potassium, Total	2.1		mg/L	0.25	EPA 200.7	1	08/16/2023 00:18	SRT	D1
Sodium, Dissolved	13.2		mg/L	0.50	EPA 200.7	1	08/14/2023 20:33	SRT	F1
Sodium, Total	13.2	3	mg/L	0.25	EPA 200.7	1	08/16/2023 00:18	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:04	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	92.4%	70 - 130	08/24/2023 04:04	

WET CHEMISTRY



Results

Client Sample ID	3079RIVERRD	Collected	08/11/2023 14:00
Lab Sample ID	3317980001	Lab Receipt	08/11/2023 17:32

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	21		mg/L	5	SM2320B-2011	1	08/16/2023 14:13	JMS	A
Alkalinity, Total	21	1	mg/L	5	SM2320B-2011	1	08/16/2023 14:13	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	08/31/2023 08:50	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	08/16/2023 10:55	KMS	C
Chloride	32.2		mg/L	2.0	EPA 300.0	2	08/12/2023 11:35	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	08/12/2023 11:35	J1W	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	08/17/2023 17:02	PAG	K
Nitrate-N	1.0		mg/L	1.0	EPA 300.0	2	08/12/2023 11:35	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	08/12/2023 11:35	J1W	A
pH	6.98	2	pH_Units		S4500HB-11	1	08/16/2023 14:13	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	08/17/2023 16:21	AKH	J
Specific Conductance	188		umhos/cm	5	SM2510B-2011	1	08/22/2023 10:30	JXL	A
Sulfate	8.8		mg/L	2.0	EPA 300.0	2	08/12/2023 11:35	J1W	A
Total Dissolved Solids	135		mg/L	25	SM2540C-15	1	08/18/2023 17:13	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	08/16/2023 03:50	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	08/11/2023 22:25	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3317980001	3079RIVERRD	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3317980001	3079RIVERRD	N/A	N/A	N/A		Field	1052148
		EPA ACID	1048103	08/14/2023 17:21	MO	EPA 200.7	1048104
		EPA TRMD	1048154	08/15/2023 08:00	MEM	EPA 200.7	1048326
		N/A	N/A	N/A		EPA 524.2	1050861
		N/A	N/A	N/A		EPA 300.0	1046840
		N/A	N/A	N/A		EPA 410.4	1048745
		SW846 9066	1048837	08/17/2023 09:51	AKH	EPA 420.4	1049116
		N/A	N/A	N/A		S4500HB-11	1048757
		N/A	N/A	N/A		SM 4500-NH3G	1052414
		N/A	N/A	N/A		SM2130B-2011	1046239
		N/A	N/A	N/A		SM2320B-2011	1048757
		N/A	N/A	N/A		SM2510B-2011	1050167
		N/A	N/A	N/A		SM2540C-15	1049594
		N/A	N/A	N/A		SM5310B-14	1048297
		N/A	N/A	N/A		SW846 9020B	1049072



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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 3RD QTR 2023-3088 RIVER RD
Workorder 3317981
Report ID 267077 on 8/29/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 11, 2023.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

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ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

- Jordan Bigler - Lancaster County Solid Waste Authority
- Ashley Gichuki - Lancaster County Solid Waste Authority
- Daniel Brown - Lancaster County Solid Waste Authority
- Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3317981001	3088 River Road, Conestoga PA	Water	08/11/2023 12:05	08/11/2023 17:32	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
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EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 3 | The Method Blank for method EPA 200.7 reported a value greater than the reporting level for the analyte Sodium, Total. The concentration was 0.28 mg/L. Sample concentration was 10x greater than the concentration of the MB. |



Detected Results Summary

Client Sample ID	3088 River Road, Conestoga PA	Collected	08/11/2023 12:05
Lab Sample ID	3317981001	Lab Receipt	08/11/2023 17:32

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.94	pH_Units		Field	#
Specific Conductance, Field	1519	umhos/cm	1	Field	#
Temperature	16.10	Deg. C		Field	#
METALS					
Calcium, Dissolved	0.12	mg/L	0.10	EPA 200.7	#
Calcium, Total	0.13	mg/L	0.050	EPA 200.7	#
Potassium, Dissolved	2.4	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.3	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	283	mg/L	0.50	EPA 200.7	#
Sodium, Total	276	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	145	mg/L	5	SM2320B-2011	#
Alkalinity, Total	145	mg/L	5	SM2320B-2011	#
Chloride	398	mg/L	5.0	EPA 300.0	#
Nitrate-N	5.0	mg/L	2.5	EPA 300.0	#
pH	8.02	pH_Units		S4500HB-11	#
Specific Conductance	1510	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	816	mg/L	25	SM2540C-15	#
Turbidity	0.30	NTU	0.30	SM2130B-2011	#



Results

Client Sample ID	3088 River Road, Conestoga PA	Collected	08/11/2023 12:05
Lab Sample ID	3317981001	Lab Receipt	08/11/2023 17:32

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.94		pH_Units		Field	1	08/11/2023 12:05	BGS	P
Specific Conductance, Field	1519		umhos/cm	1	Field	1	08/11/2023 12:05	BGS	P
Temperature	16.10		Deg. C		Field	1	08/11/2023 12:05	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	0.12		mg/L	0.10	EPA 200.7	1	08/14/2023 20:36	SRT	F1
Calcium, Total	0.13		mg/L	0.050	EPA 200.7	1	08/15/2023 23:48	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	08/14/2023 20:36	SRT	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	08/15/2023 23:48	SRT	D1
Magnesium, Dissolved	ND	ND	mg/L	0.10	EPA 200.7	1	08/14/2023 20:36	SRT	F1
Magnesium, Total	ND	ND	mg/L	0.050	EPA 200.7	1	08/15/2023 23:48	SRT	D1
Manganese, Dissolved	ND	ND	mg/L	0.0050	EPA 200.7	1	08/14/2023 20:36	SRT	F1
Manganese, Total	ND	ND	mg/L	0.0025	EPA 200.7	1	08/15/2023 23:48	SRT	D1
Potassium, Dissolved	2.4		mg/L	0.50	EPA 200.7	1	08/14/2023 20:36	SRT	F1
Potassium, Total	2.3		mg/L	0.25	EPA 200.7	1	08/15/2023 23:48	SRT	D1
Sodium, Dissolved	283		mg/L	0.50	EPA 200.7	1	08/14/2023 20:36	SRT	F1
Sodium, Total	276	3	mg/L	0.25	EPA 200.7	1	08/15/2023 23:48	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:31	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	93.6%	70 - 130	08/24/2023 04:31	

WET CHEMISTRY



Results

Client Sample ID	3088 River Road, Conestoga PA	Collected	08/11/2023 12:05
Lab Sample ID	3317981001	Lab Receipt	08/11/2023 17:32

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	145		mg/L	5	SM2320B-2011	1	08/16/2023 14:25	JMS	A
Alkalinity, Total	145	1	mg/L	5	SM2320B-2011	1	08/16/2023 14:25	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	08/17/2023 13:33	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	08/16/2023 10:55	KMS	C
Chloride	398		mg/L	5.0	EPA 300.0	5	08/12/2023 11:45	J1W	A
Fluoride	ND	ND	mg/L	0.50	EPA 300.0	5	08/12/2023 11:45	J1W	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	08/22/2023 17:14	PAG	K
Nitrate-N	5.0		mg/L	2.5	EPA 300.0	5	08/12/2023 11:45	J1W	A
Nitrite-N	ND	ND	mg/L	2.5	EPA 300.0	5	08/12/2023 11:45	J1W	A
pH	8.02	2	pH_Units		S4500HB-11	1	08/16/2023 14:25	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	08/17/2023 16:50	AKH	J
Specific Conductance	1510		umhos/cm	5	SM2510B-2011	1	08/22/2023 10:30	JXL	A
Sulfate	ND	ND	mg/L	5.0	EPA 300.0	5	08/12/2023 11:45	J1W	A
Total Dissolved Solids	816		mg/L	25	SM2540C-15	1	08/18/2023 17:13	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	08/16/2023 03:50	PAG	H
Turbidity	0.30		NTU	0.30	SM2130B-2011	1	08/11/2023 22:25	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3317981001	3088 River Road, Conestoga PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3317981001	3088 River Road, Conestoga PA	N/A	N/A	N/A		Field	1052148
		EPA TRMD	1048154	08/15/2023 08:00	MEM	EPA 200.7	1048326
		EPA ACID	1048103	08/14/2023 17:21	MO	EPA 200.7	1048104
		N/A	N/A	N/A		EPA 524.2	1050861
		N/A	N/A	N/A		EPA 300.0	1046840
		N/A	N/A	N/A		EPA 410.4	1048745
		SW846 9066	1048837	08/17/2023 09:51	AKH	EPA 420.4	1049116
		N/A	N/A	N/A		S4500HB-11	1048757
		N/A	N/A	N/A		SM 4500-NH3G	1049058
		N/A	N/A	N/A		SM2130B-2011	1046239
		N/A	N/A	N/A		SM2320B-2011	1048757
		N/A	N/A	N/A		SM2510B-2011	1050167
		N/A	N/A	N/A		SM2540C-15	1049594
		N/A	N/A	N/A		SM5310B-14	1048297
N/A	N/A	N/A		SW846 9020B	1050337		



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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

**ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK.**

Generated by ALS
3317981
Logged By: SLS
PM: SJB

1 of 1

Client Name: LCSWMA - Hans Weber and Deb Kalbach
Address: 3088 River Road
Conestoga, PA 17516
Contact: Hans Weber and Deb Kalbach
Phone#: (717) 419-7982

Project Name#: LCSWMA - Quarterly
Bill To: LCSWMA - Hans Weber and Deb Kalbach

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: _____ **Approved By:** _____
Email? -Y -N
Fax? -Y -N

Container Type	AG	AN	AN	CG	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	125 ml	125 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	ASC/HCl	HNO3	HNO3	None

ANALYSES/METHOD REQUESTED											
Matrix	TOC	O-OH	TOX	EPA 524.2 - Form 52	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	PH, TDS, NO2, NO3, Cl, SO4, F, Tb, Spc	Alkalinity, HCO3
*G or C	2	1	2	3	X	1	2	2	2	1	1
**Matrix	DW	DW	DI								

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time
1 3088RIVER RD	08/11/23	1205
2. Trip Blank	08/11/23	1732
3		
4		
5		
6		
7		
8		
9		
10		

Project Comments:	LOGGED BY (signature):	DATE:	TIME:		
	REVIEWED BY (signature):	DATE:	TIME:		
Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 <i>Shack ALS</i>	8-11-23	1732	<i>[Signature]</i>	8-1-23	1732
3					
5					
7					
9					

Cooler Temp: _____ **Therm ID:** _____
No. of Coolers: Y N Initial

Temp By: *RW* **WO Temp (°C):** *2c*
Therm ID: *524*

Receipt Info Completed By:
Cooler Custody Seal Intact
Sample Custody Seal Intact
Received on Ice
Cooler & Samples Intact
Correct Containers Provided
Sample Label/COC Agree
Adequate Sample Volumes
CR6 Samples Filtered
OP Samples Filtered
VOA Trip Blank
NIS 4 Days?
Rad Screen (uCi)
Courier/Tracking #:

SDWA Compliance
PWSID
WV Containers 0-6 C

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

Standard	Special Processing	State Samples Collected In
<input type="checkbox"/> CLP-like	USACE	NY
<input type="checkbox"/> USACE	Navy	NJ
<input type="checkbox"/>		PA
<input type="checkbox"/>		NC

Reportable to PADEP?
Yes No
Sample Disposal: Lab Special
PWSID # _____
EDDS: Format Type _____



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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 3RD QTR-2023 3100 RIVER RD

Workorder 3317982

Report ID 267700 on 8/31/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 11, 2023.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3317982001	3100 River Road, Conestoga, PA	Water	08/11/2023 13:50	08/11/2023 17:32	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
 EPA 300.1 Rev. 1.0-1997
 EPA 300.0 Rev. 2.1-1993
 EPA 353.2 Rev. 2.0-1993
 EPA 410.4 Rev. 1.0-1993
 EPA 420.4 Rev. 1.0-1993
 EPA 365.1 Rev. 2.0-1993
 EPA 200.7 Rev. 4.4-1994
 EPA 200.8 Rev. 5.4-1994
 EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.



Project 3RD QTR-2023 3100 RIVER RD
Workorder 3317982

Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 3 | The Method Blank for method EPA 200.7 reported a value greater than the reporting level for the analyte Sodium, Total. The concentration was 0.28 mg/L. Sample concentration was 10x greater than the concentration of the MB. |



Detected Results Summary

Client Sample ID	3100 River Road, Conestoga, PA	Collected	08/11/2023 13:50
Lab Sample ID	3317982001	Lab Receipt	08/11/2023 17:32

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.03	pH_Units		Field	#
Specific Conductance, Field	229	umhos/cm	1	Field	#
Temperature	15.80	Deg. C		Field	#
METALS					
Calcium, Dissolved	13.3	mg/L	0.10	EPA 200.7	#
Calcium, Total	13.6	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	6.5	mg/L	0.10	EPA 200.7	#
Magnesium, Total	6.4	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.0075	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.0086	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	1.9	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.8	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	16.0	mg/L	0.50	EPA 200.7	#
Sodium, Total	16.6	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	17	mg/L	5	SM2320B-2011	#
Alkalinity, Total	17	mg/L	5	SM2320B-2011	#
Chloride	42.1	mg/L	2.0	EPA 300.0	#
Nitrate-N	3.4	mg/L	1.0	EPA 300.0	#
pH	6.98	pH_Units		S4500HB-11	#
Specific Conductance	234	umhos/cm	5	SM2510B-2011	#
Sulfate	6.3	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	181	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3100 River Road, Conestoga, PA	Collected	08/11/2023 13:50
Lab Sample ID	3317982001	Lab Receipt	08/11/2023 17:32

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.03		pH_Units		Field	1	08/11/2023 13:50	BGS	O
Specific Conductance, Field	229		umhos/cm	1	Field	1	08/11/2023 13:50	BGS	O
Temperature	15.80		Deg. C		Field	1	08/11/2023 13:50	BGS	O

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	13.3		mg/L	0.10	EPA 200.7	1	08/14/2023 20:39	SRT	F1
Calcium, Total	13.6		mg/L	0.050	EPA 200.7	1	08/16/2023 00:21	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	08/14/2023 20:39	SRT	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	08/16/2023 00:21	SRT	D1
Magnesium, Dissolved	6.5		mg/L	0.10	EPA 200.7	1	08/14/2023 20:39	SRT	F1
Magnesium, Total	6.4		mg/L	0.050	EPA 200.7	1	08/16/2023 00:21	SRT	D1
Manganese, Dissolved	0.0075		mg/L	0.0050	EPA 200.7	1	08/14/2023 20:39	SRT	F1
Manganese, Total	0.0086		mg/L	0.0025	EPA 200.7	1	08/16/2023 00:21	SRT	D1
Potassium, Dissolved	1.9		mg/L	0.50	EPA 200.7	1	08/14/2023 20:39	SRT	F1
Potassium, Total	1.8		mg/L	0.25	EPA 200.7	1	08/16/2023 00:21	SRT	D1
Sodium, Dissolved	16.0		mg/L	0.50	EPA 200.7	1	08/14/2023 20:39	SRT	F1
Sodium, Total	16.6	3	mg/L	0.25	EPA 200.7	1	08/16/2023 00:21	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 04:58	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	94.2%	70 - 130	08/24/2023 04:58	

WET CHEMISTRY



Results

Client Sample ID	3100 River Road, Conestoga, PA	Collected	08/11/2023 13:50
Lab Sample ID	3317982001	Lab Receipt	08/11/2023 17:32

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	17		mg/L	5	SM2320B-2011	1	08/16/2023 14:40	JMS	A
Alkalinity, Total	17	1	mg/L	5	SM2320B-2011	1	08/16/2023 14:40	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	08/31/2023 08:59	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	08/16/2023 10:55	KMS	C
Chloride	42.1		mg/L	2.0	EPA 300.0	2	08/12/2023 11:56	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	08/12/2023 11:56	J1W	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	08/22/2023 17:14	PAG	K
Nitrate-N	3.4		mg/L	1.0	EPA 300.0	2	08/12/2023 11:56	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	08/12/2023 11:56	J1W	A
pH	6.98	2	pH_Units		S4500HB-11	1	08/16/2023 14:40	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	08/17/2023 16:46	AKH	J
Specific Conductance	234		umhos/cm	5	SM2510B-2011	1	08/22/2023 10:30	JXL	A
Sulfate	6.3		mg/L	2.0	EPA 300.0	2	08/12/2023 11:56	J1W	A
Total Dissolved Solids	181		mg/L	25	SM2540C-15	1	08/18/2023 17:13	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	08/16/2023 03:50	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	08/11/2023 22:25	NRB	A



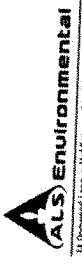
Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3317982001	3100 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3317982001	3100 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1052148
		EPA ACID	1048103	08/14/2023 17:21	MO	EPA 200.7	1048104
		EPA TRMD	1048154	08/15/2023 08:00	MEM	EPA 200.7	1048326
		N/A	N/A	N/A		EPA 524.2	1050861
		N/A	N/A	N/A		EPA 300.0	1046840
		N/A	N/A	N/A		EPA 410.4	1048745
		SW846 9066	1048837	08/17/2023 09:51	AKH	EPA 420.4	1049116
		N/A	N/A	N/A		S4500HB-11	1048757
		N/A	N/A	N/A		SM 4500-NH3G	1052414
		N/A	N/A	N/A		SM2130B-2011	1046239
		N/A	N/A	N/A		SM2320B-2011	1048757
		N/A	N/A	N/A		SM2510B-2011	1050167
		N/A	N/A	N/A		SM2540C-15	1049594
		N/A	N/A	N/A		SM5310B-14	1048297
N/A	N/A	N/A		SW846 9020B	1050337		



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 31 Dogwood Lane • Address: PA 17057 • Phone: 717-944-5541 • Fax: 717-944-1430 • www.alsglobal.com

**CHAIN OF CUSTODY/
 REQUEST FOR ANALYSIS**
**ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/
 SAMPLER. INSTRUCTIONS ON THE BACK.**

Client Name: LCSWMA - Larry Kirchner
Address: 3100 River Road
 Conestoga, PA 17516
Contact: Larry Kirchner
Phone#: (717) 584-0030
Project Name#: LCSWMA - Quarterly
Bill To: Lancaster County Solid Waste MA

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: _____ **Approved By:** _____
Email? -Y -N
Fax? -Y -N

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix
1 3100RIVERRD	08/11/23	1350	G DW	2
2. Trip Blank	08/11/23	1732	G DI	2
3				
4				
5				
6				
7				
8				
9				
10				

Project Comments:
 Relinquished By / Company Name: *ALS*
 Date: 8/11/23
 Time: 1732
 Received By / Company Name: _____
 Date: _____
 Time: _____

3317982
 Logged By: SLS
 PM: SJB

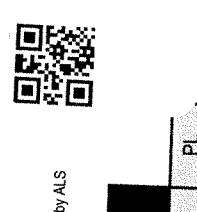
1 of 1
 J by Receiving Lab

Cooler Temp: _____ **Therm ID:** _____
No. of Coolers: Y N Initial
 Custody Seals Present? Y N
 (if present) Seals Intact? Y N
 Received on Ice? Y N
 COC Labels Complete/Accurate? Y N
 Cont. in Good Cond.? Y N
 Correct Containers? Y N

Temp By: *W* **WO Temp (°C):** *2c*
Therm ID: *S21*
 Receipt Info Completed By: *RAW*
 Cooler Custody Seal Intact: Y N N A
 Sample Custody Seal Intact: Y N N A
 Received on Ice: Y N N A
 Cooler & Samples Intact: Y N N A
 Correct Containers Provided: Y N N A
 Sample Label/COC Agree: Y N N A
 Adequate Sample Volumes: Y N N A
 CR6 Samples Filtered: Y N N A
 OP Samples Filtered: Y N N A
 VOA Trip Blank: Y N N A
 NIS 4 Days? Y N N A
 Rad Screen (uCi): Y N N A
 Courier/Tracking #: _____
 SDWA Compliance: *Y*
 PWSID: *C*
 WV Containers 0-6°C: *Y*

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

Special Processing:
 USACE
 Navy
 State Samples Collected In: NY NJ PA NC
Sample Disposal: Lab Special
 Reportable to PADEP? Yes No
 PWSID # _____
 EDDS: Format Type: _____



Generated by ALS

Container Type: _____
Container Size: _____
Preservative: _____

Enter Number of Containers Per Sample or Field Results Below.

TOC	O-OH	TOX	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	PH, TDS, NO2, NO3, Cl, SO4, F, Pb, SpC	Alkalinity, HCO3
2	1	2	3	1	2	2	2	1	1

LOGGED BY (signature): _____
REVIEWED BY (signature): _____

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Client Name: LCSWMA - Larry Kirchner
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Contact: Larry Kirchner
Phone#: (717) 584-0030
Project Name#: LCSWMA - Quarterly
Bill To: Lancaster County Solid Waste MA

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Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix
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2. Trip Blank	08/11/23	1732	G DI	2
3				
4				
5				
6				
7				
8				
9				
10				

Project Comments:
 Relinquished By / Company Name: *ALS*
 Date: 8/11/23
 Time: 1732
 Received By / Company Name: _____
 Date: _____
 Time: _____



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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 3RD QTR 2023-3106 RIVER RD
Workorder 3317983
Report ID 267668 on 8/31/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 11, 2023.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3317983001	3106 River Road, Conestoga, PA	Water	08/11/2023 11:50	08/11/2023 17:32	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.



Project 3RD QTR 2023-3106 RIVER RD
Workorder 3317983

Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 3 | The Method Blank for method EPA 200.7 reported a value greater than the reporting level for the analyte Sodium, Total. The concentration was 0.28 mg/L. Sample concentration was 10x greater than the concentration of the MB. |



Detected Results Summary

Client Sample ID	3106 River Road, Conestoga, PA	Collected	08/11/2023 11:50
Lab Sample ID	3317983001	Lab Receipt	08/11/2023 17:32

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.07	pH_Units		Field	#
Specific Conductance, Field	437	umhos/cm	1	Field	#
Temperature	15.40	Deg. C		Field	#
METALS					
Calcium, Dissolved	20.1	mg/L	0.10	EPA 200.7	#
Calcium, Total	20.4	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	12.5	mg/L	0.10	EPA 200.7	#
Magnesium, Total	12.2	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.037	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.037	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.4	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.4	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	37.9	mg/L	0.50	EPA 200.7	#
Sodium, Total	38.6	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	16	mg/L	5	SM2320B-2011	#
Alkalinity, Total	16	mg/L	5	SM2320B-2011	#
Chloride	93.7	mg/L	2.0	EPA 300.0	#
Nitrate-N	9.3	mg/L	1.0	EPA 300.0	#
pH	7.14	pH_Units		S4500HB-11	#
Specific Conductance	443	umhos/cm	5	SM2510B-2011	#
Sulfate	6.6	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	322	mg/L	25	SM2540C-15	#
Turbidity	0.40	NTU	0.30	SM2130B-2011	#



Results

Client Sample ID	3106 River Road, Conestoga, PA	Collected	08/11/2023 11:50
Lab Sample ID	3317983001	Lab Receipt	08/11/2023 17:32

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.07		pH_Units		Field	1	08/11/2023 11:50	BGS	P
Specific Conductance, Field	437		umhos/cm	1	Field	1	08/11/2023 11:50	BGS	P
Temperature	15.40		Deg. C		Field	1	08/11/2023 11:50	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	20.1		mg/L	0.10	EPA 200.7	1	08/14/2023 20:43	SRT	F1
Calcium, Total	20.4		mg/L	0.050	EPA 200.7	1	08/16/2023 00:14	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	08/14/2023 20:43	SRT	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	08/16/2023 00:14	SRT	D1
Magnesium, Dissolved	12.5		mg/L	0.10	EPA 200.7	1	08/14/2023 20:43	SRT	F1
Magnesium, Total	12.2		mg/L	0.050	EPA 200.7	1	08/16/2023 00:14	SRT	D1
Manganese, Dissolved	0.037		mg/L	0.0050	EPA 200.7	1	08/14/2023 20:43	SRT	F1
Manganese, Total	0.037		mg/L	0.0025	EPA 200.7	1	08/16/2023 00:14	SRT	D1
Potassium, Dissolved	2.4		mg/L	0.50	EPA 200.7	1	08/14/2023 20:43	SRT	F1
Potassium, Total	2.4		mg/L	0.25	EPA 200.7	1	08/16/2023 00:14	SRT	D1
Sodium, Dissolved	37.9		mg/L	0.50	EPA 200.7	1	08/14/2023 20:43	SRT	F1
Sodium, Total	38.6	3	mg/L	0.25	EPA 200.7	1	08/16/2023 00:14	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:25	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	95.3%	70 - 130	08/24/2023 05:25	

WET CHEMISTRY



Results

Client Sample ID	3106 River Road, Conestoga, PA	Collected	08/11/2023 11:50
Lab Sample ID	3317983001	Lab Receipt	08/11/2023 17:32

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	16		mg/L	5	SM2320B-2011	1	08/16/2023 14:55	JMS	A
Alkalinity, Total	16	1	mg/L	5	SM2320B-2011	1	08/16/2023 14:55	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	08/31/2023 08:53	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	08/16/2023 10:55	KMS	C
Chloride	93.7		mg/L	2.0	EPA 300.0	2	08/12/2023 12:06	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	08/12/2023 12:06	J1W	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	08/22/2023 17:14	PAG	K
Nitrate-N	9.3		mg/L	1.0	EPA 300.0	2	08/12/2023 12:06	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	08/12/2023 12:06	J1W	A
pH	7.14	2	pH_Units		S4500HB-11	1	08/16/2023 14:55	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	08/17/2023 15:36	AKH	J
Specific Conductance	443		umhos/cm	5	SM2510B-2011	1	08/17/2023 13:30	JXL	A
Sulfate	6.6		mg/L	2.0	EPA 300.0	2	08/12/2023 12:06	J1W	A
Total Dissolved Solids	322		mg/L	25	SM2540C-15	1	08/18/2023 17:13	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	08/16/2023 03:50	PAG	H
Turbidity	0.40		NTU	0.30	SM2130B-2011	1	08/11/2023 22:25	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3317983001	3106 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3317983001	3106 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1052148
		EPA ACID	1048103	08/14/2023 17:21	MO	EPA 200.7	1048104
		EPA TRMD	1048154	08/15/2023 08:00	MEM	EPA 200.7	1048326
		N/A	N/A	N/A		EPA 524.2	1050861
		N/A	N/A	N/A		EPA 300.0	1046840
		N/A	N/A	N/A		EPA 410.4	1048745
		SW846 9066	1048837	08/17/2023 09:51	AKH	EPA 420.4	1049116
		N/A	N/A	N/A		S4500HB-11	1048757
		N/A	N/A	N/A		SM 4500-NH3G	1052414
		N/A	N/A	N/A		SM2130B-2011	1046239
		N/A	N/A	N/A		SM2320B-2011	1048757
		N/A	N/A	N/A		SM2510B-2011	1049182
		N/A	N/A	N/A		SM2540C-15	1049594
		N/A	N/A	N/A		SM5310B-14	1048297
N/A	N/A	N/A		SW846 9020B	1050337		



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**CHAIN OF CUSTODY/
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**ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
 SAMPLER. INSTRUCTIONS ON THE BACK.**

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 14 Corporate Line • Middletown, PA 17087 • Phone: 717.944.5541 • Fax: 717.944.1430 • www.alsglobal.com

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 Rush-Subject to ALS approval and surcharges.
Date Required: _____ **Approved By:** _____
Email? -Y -N
Fax? -Y -N

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time
1 3106RIVERRD	08/11/23	1450
2. Trip Blank	08/11/23	1732
3		
4		
5		
6		
7		
8		
9		
10		

Container Type	AG	AN	AN	CG	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	250 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	ASC/HCl	HNO3	HNO3	HNO3	None	None

Container Type	AG	AN	AN	CG	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	250 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	ASC/HCl	HNO3	HNO3	HNO3	None	None

Container Type	AG	AN	AN	CG	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	250 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	ASC/HCl	HNO3	HNO3	HNO3	None	None

Container Type	AG	AN	AN	CG	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	250 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	ASC/HCl	HNO3	HNO3	HNO3	None	None

Project Comments:
 Relinquished By / Company Name: ALS
 Date: 8/11/23
 Time: 1732

Cooler Temp: _____
No. of Coolers: _____
Therm ID: _____
 Custody Seals Present? Y N Initial _____
 (if present) Seals Intact? Y N Initial _____
Temp By: RWL zc
WO Temp (°C): 524

Cour
 Receipt Info Completed By:
 Cooler Custody Seal Intact
 Sample Custody Seal Intact
 Received on Ice
 Cooler & Samples Intact
 Correct Containers Provided
 Sample Label/COC Agree
 Adequate Sample Volumes
 CR6 Samples Filtered
 VOA Trip Blank
 NJS 4 Days?
 Rad Screen (uCi)
 Courier/Tracking #:
 SDWA Compliance
 PWSID
 WV Containers 0-6°C

Enter Number of Containers Per Sample or Field Results Below.	TOC	O-OH	TOX	EPA 524.2 - Form 52	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, TB, SPC	Alkalinity, HCO3
**Matrix	2	1	2	3	1	2	2	2	1	1

Project Comments:	LOGGED BY (signature):	REVIEWED BY (signature):

State Samples Collected In	Special Processing	Special Processing	Special Processing
NY <input type="checkbox"/>	USACE <input type="checkbox"/>	Navy <input type="checkbox"/>	USACE <input type="checkbox"/>
NJ <input type="checkbox"/>	USACE <input type="checkbox"/>	USACE <input type="checkbox"/>	USACE <input type="checkbox"/>
PA <input checked="" type="checkbox"/>	USACE <input type="checkbox"/>	USACE <input type="checkbox"/>	USACE <input type="checkbox"/>
NC <input type="checkbox"/>	USACE <input type="checkbox"/>	USACE <input type="checkbox"/>	USACE <input type="checkbox"/>

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057
 10 of 10

Rev 8/04

8/31/2023 4:40 PM



301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 3RD QTR 2023-3125 RIVER RD
Workorder 3317984
Report ID 267074 on 8/29/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 11, 2023.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3317984001	3125 River Road, Conestoga, PA	Water	08/11/2023 11:40	08/11/2023 17:32	BGS	Analytical Laboratory Service
3317984002	Trip Blank	Water	08/11/2023 17:32	08/11/2023 17:32	BGS	Analytical Laboratory Service
3317984003	Field Blank	Water	08/11/2023 15:10	08/11/2023 17:32	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 2 | The QC sample type MS for method EPA 350.1 was outside the control limits for the analyte Ammonia-N, Low Level. The % Recovery was reported as 83.8 and the lower control limit is 90. |
| 3 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 4 | The QC type CCB for method EPA 200.7 was outside the control limits for the analyte Sodium, Total. The concentration was reported as 0.5904 mg/L and the upper control limit was 0.5 mg/L. The concentration of the sample was greater than 10x the concentration in the CCB. |



Detected Results Summary

Client Sample ID	3125 River Road, Conestoga, PA	Collected	08/11/2023 11:40
Lab Sample ID	3317984001	Lab Receipt	08/11/2023 17:32

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	8.05	pH_Units		Field	#
Specific Conductance, Field	631	umhos/cm	1	Field	#
Temperature	15.70	Deg. C		Field	#
METALS					
Calcium, Dissolved	6.8	mg/L	0.10	EPA 200.7	#
Calcium, Total	7.0	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	1.5	mg/L	0.10	EPA 200.7	#
Magnesium, Total	1.5	mg/L	0.050	EPA 200.7	#
Potassium, Dissolved	2.9	mg/L	0.50	EPA 200.7	#
Potassium, Total	3.0	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	128	mg/L	0.50	EPA 200.7	#
Sodium, Total	123	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	188	mg/L	5	SM2320B-2011	#
Alkalinity, Total	188	mg/L	5	SM2320B-2011	#
Chloride	87.5	mg/L	2.0	EPA 300.0	#
Nitrate-N	4.6	mg/L	1.0	EPA 300.0	#
pH	8.13	pH_Units		S4500HB-11	#
Specific Conductance	644	umhos/cm	5	SM2510B-2011	#
Sulfate	10.3	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	372	mg/L	25	SM2540C-15	#



Detected Results Summary

Client Sample ID	Field Blank	Collected	08/11/2023 15:10
Lab Sample ID	3317984003	Lab Receipt	08/11/2023 17:32

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
VOLATILE ORGANICS					
Methylene Chloride	2.4	ug/L	0.50	EPA 524.2	#



Results

Client Sample ID	3125 River Road, Conestoga, PA	Collected	08/11/2023 11:40
Lab Sample ID	3317984001	Lab Receipt	08/11/2023 17:32

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	8.05		pH_Units		Field	1	08/11/2023 11:40	BGS	P
Specific Conductance, Field	631		umhos/cm	1	Field	1	08/11/2023 11:40	BGS	P
Temperature	15.70		Deg. C		Field	1	08/11/2023 11:40	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	6.8		mg/L	0.10	EPA 200.7	1	08/14/2023 20:46	SRT	F1
Calcium, Total	7.0		mg/L	0.050	EPA 200.7	1	08/15/2023 21:50	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	08/14/2023 20:46	SRT	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	08/15/2023 21:50	SRT	D1
Magnesium, Dissolved	1.5		mg/L	0.10	EPA 200.7	1	08/14/2023 20:46	SRT	F1
Magnesium, Total	1.5		mg/L	0.050	EPA 200.7	1	08/15/2023 21:50	SRT	D1
Manganese, Dissolved	ND	ND	mg/L	0.0050	EPA 200.7	1	08/14/2023 20:46	SRT	F1
Manganese, Total	ND	ND	mg/L	0.0025	EPA 200.7	1	08/15/2023 21:50	SRT	D1
Potassium, Dissolved	2.9		mg/L	0.50	EPA 200.7	1	08/14/2023 20:46	SRT	F1
Potassium, Total	3.0		mg/L	0.25	EPA 200.7	1	08/15/2023 21:50	SRT	D1
Sodium, Dissolved	128		mg/L	0.50	EPA 200.7	1	08/14/2023 20:46	SRT	F1
Sodium, Total	123	4	mg/L	0.25	EPA 200.7	1	08/15/2023 21:50	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 05:53	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	96%	70 - 130	08/24/2023 05:53	

WET CHEMISTRY



Results

Client Sample ID	3125 River Road, Conestoga, PA	Collected	08/11/2023 11:40
Lab Sample ID	3317984001	Lab Receipt	08/11/2023 17:32

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	188		mg/L	5	SM2320B-2011	1	08/16/2023 15:53	JMS	A
Alkalinity, Total	188	1	mg/L	5	SM2320B-2011	1	08/16/2023 15:53	JMS	A
Ammonia-N, Low Level	ND	ND,2	mg/L	0.10	SM 4500-NH3G	1	08/18/2023 04:13	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	08/16/2023 10:55	KMS	C
Chloride	87.5		mg/L	2.0	EPA 300.0	2	08/12/2023 12:17	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	08/12/2023 12:17	J1W	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	08/22/2023 17:14	PAG	K
Nitrate-N	4.6		mg/L	1.0	EPA 300.0	2	08/12/2023 12:17	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	08/12/2023 12:17	J1W	A
pH	8.13	3	pH_Units		S4500HB-11	1	08/16/2023 15:53	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	08/17/2023 15:00	AKH	J
Specific Conductance	644		umhos/cm	5	SM2510B-2011	1	08/22/2023 10:30	JXL	A
Sulfate	10.3		mg/L	2.0	EPA 300.0	2	08/12/2023 12:17	J1W	A
Total Dissolved Solids	372		mg/L	25	SM2540C-15	1	08/18/2023 17:13	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	08/16/2023 03:50	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	08/11/2023 22:25	NRB	A



Results

Client Sample ID	Trip Blank	Collected	08/11/2023 17:32
Lab Sample ID	3317984002	Lab Receipt	08/11/2023 17:32

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:24	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	96.1%	70 - 130	08/24/2023 01:24	



Results

Client Sample ID	Field Blank	Collected	08/11/2023 15:10
Lab Sample ID	3317984003	Lab Receipt	08/11/2023 17:32

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
Methylene Chloride	2.4		ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	08/24/2023 01:51	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	91.6%	70 - 130	08/24/2023 01:51	



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3317984001	3125 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	
3317984002	Trip Blank	EPA 524.2	N/A	
3317984003	Field Blank	EPA 524.2	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3317984001	3125 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1052148
		EPA TRMD	1047849	08/14/2023 08:00	MEM	EPA 200.7	1048321
		EPA ACID	1048103	08/14/2023 17:21	MO	EPA 200.7	1048104
		N/A	N/A	N/A		EPA 524.2	1050861
		N/A	N/A	N/A		EPA 300.0	1046840
		N/A	N/A	N/A		EPA 410.4	1048745
		SW846 9066	1048837	08/17/2023 09:51	AKH	EPA 420.4	1049116
		N/A	N/A	N/A		S4500HB-11	1048757
		N/A	N/A	N/A		SM 4500-NH3G	1048959
		N/A	N/A	N/A		SM2130B-2011	1046239
		N/A	N/A	N/A		SM2320B-2011	1048757
		N/A	N/A	N/A		SM2510B-2011	1050167
		N/A	N/A	N/A		SM2540C-15	1049594
		N/A	N/A	N/A		SM5310B-14	1048297
N/A	N/A	N/A		SW846 9020B	1050337		
3317984002	Trip Blank	N/A	N/A	N/A		EPA 524.2	1050861
3317984003	Field Blank	N/A	N/A	N/A		EPA 524.2	1050861



301 Fulfilling Mill Road • Middletown, PA 17057 • Phone: 717-944-5541 • Fax: 717-944-1430 • www.alsglobal.com

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

**ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK**

Generated by ALS
3317984
Logged By: SLS
PM: SJB

Client Name: LCSWMA - Christian C. Beck
Address: 3125 River Road
Conestoga, PA 17516
Contact: Christian C. Beck
Phone#: (717) 871-0448

Project Name#: LCSWMA - Quarterly
Bill To: Lancaster County Solid Waste MA

TAT Normal-Standard TAT is 10-12 business days.
Date Required: Rush-Subject to ALS approval and surcharges.
Approved By: _____
Email? -Y -N
Fax? -Y -N

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix
1 3125RIVERRD	08/11/23	1140	G DW	
2. Trip Blank	08/11/23	0830	G DI	
3. Field Blank	08/11/23	1510	G DI	
4				
5				
6				
7				
8				
9				
10				

Project Comments:

Reinquished By/ Company Name
1 *[Signature]* ALS
3 *[Signature]* ALS

Date Time
1 08/20 1732
3 08/25 1732

Received By / Company Name
2 *[Signature]*
4 *[Signature]*
6 *[Signature]*
8 *[Signature]*
10 *[Signature]*

LOGGED BY (signature):
REVIEWED BY (signature):

State Samples Collected In
NY NJ PA NC

Special Processing
USACE Navy

Sample Disposal
Lab Special

Reportable to PADEP?
Yes

PWSID #

EDDS: Format Type

1 of 1

Therm ID: *Szy*

Temp By: *Ww / ze*

WO Temp (°C)

Receipt Info Completed By:
Cooler Custody Seal Intact
Sample Custody Seal Intact
Received on Ice
Cooler & Samples Intact
Correct Containers Provided
Sample Label/COC Agree
Adequate Sample Volumes
CR6 Samples Filtered
OP Samples Filtered
VOA Trip Blank
NLS 4 Days?
Rad Screen (uCi)
Courier/Tracking #:

SDWA Compliance
PWSID
WV Containers 0-6°C

ALS Field Services: Pickup Labor
 Composite Sampling Rental Equipment
 Other:

Standard CLP-like USACE

Deliverables

Enter Number of Containers Per Sample or Field Results Below.

TOC O-OH TOX FM NH3-N, COD Dissolved Metals: Ca, Fe, Mg, Mn, K, Na K, Na Metals: Ca, Fe, Mg, Mn, K, Na pH, TDS, NO2, NO3, Cl, SO4, F, Tb, Spc Alkalinity, HCO3

Container Type
Container Size
Preservative

AG AN AN CG PL PL PL PL PL PL
40 ml 125 ml 250 ml 40 ml 250 ml 125 ml 125 ml 500 ml
HCl H2SO4 H2SO4 ASC/HCl H2SO4 HNO3 HNO3 None

Cooler Temp: _____ Therm ID: _____
No. of Coolers: _____ Y N Initial

Custody Seals Present? _____
(if present) Seals Intact? _____
Received on Ice? _____
COC/Lab/Label Accuracy? _____

Y N NA Y N NA Y N NA Y N NA Y N NA Y N NA Y N NA Y N NA

ALS Field Services: Pickup Labor
 Composite Sampling Rental Equipment
 Other:

Standard CLP-like USACE

Deliverables

Generated by ALS
3317984
Logged By: SLS
PM: SJB

Therm ID: *Szy*

Temp By: *Ww / ze*

WO Temp (°C)

Receipt Info Completed By:
Cooler Custody Seal Intact
Sample Custody Seal Intact
Received on Ice
Cooler & Samples Intact
Correct Containers Provided
Sample Label/COC Agree
Adequate Sample Volumes
CR6 Samples Filtered
OP Samples Filtered
VOA Trip Blank
NLS 4 Days?
Rad Screen (uCi)
Courier/Tracking #:

SDWA Compliance
PWSID
WV Containers 0-6°C

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 Composite Sampling Rental Equipment
 Other:

Standard CLP-like USACE

Deliverables

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Container Size
Preservative

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40 ml 125 ml 250 ml 40 ml 250 ml 125 ml 125 ml 500 ml
HCl H2SO4 H2SO4 ASC/HCl H2SO4 HNO3 HNO3 None

Cooler Temp: _____ Therm ID: _____
No. of Coolers: _____ Y N Initial

Custody Seals Present? _____
(if present) Seals Intact? _____
Received on Ice? _____
COC/Lab/Label Accuracy? _____

Y N NA Y N NA Y N NA Y N NA Y N NA Y N NA Y N NA Y N NA

ALS Field Services: Pickup Labor
 Composite Sampling Rental Equipment
 Other:

Standard CLP-like USACE

Deliverables

Generated by ALS
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Logged By: SLS
PM: SJB

Therm ID: *Szy*

Temp By: *Ww / ze*

WO Temp (°C)

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Cooler Custody Seal Intact
Sample Custody Seal Intact
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Cooler Temp: _____ Therm ID: _____
No. of Coolers: _____ Y N Initial

Custody Seals Present? _____
(if present) Seals Intact? _____
Received on Ice? _____
COC/Lab/Label Accuracy? _____

Y N NA Y N NA Y N NA Y N NA Y N NA Y N NA Y N NA Y N NA

ALS Field Services: Pickup Labor
 Composite Sampling Rental Equipment
 Other:

Standard CLP-like USACE

Deliverables